



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/821,434

04/09/2004

Charbel Khawand

CEI1334J1017

1239

24273 7590 11/21/2007  
MOTOROLA, INC  
INTELLECTUAL PROPERTY SECTION  
LAW DEPT  
8000 WEST SUNRISE BLVD  
FT LAUDERDAL, FL 33322

EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

11/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/821,434

Applicant(s)

KHAWAND, CHARBEL

Examiner

Marivelisse Santiago-Cordero

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 12, 14-21 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 10, 13, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Response to Amendment***

2. Although a new ground of rejection is presented in the Office Action, the declaration filed on 5/1/06 under 37 CFR 1.131 has been considered but is ineffective.

The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the previously cited Stern-Berkowitz reference to either a constructive reduction to practice or an actual reduction to practice.

Applicant declared to have conceived the invention as early as March 11, 2003 (See Declaration: Item 5). Applicant further declared that in due course the Motorola's patent committee reviewed the disclosure, including a review on September 16, 2003 (See Declaration: Item 6). In addition, Item 6 of the Declaration states that Motorola subsequently hired outside counsel on January 20, 2004 to prepare and file the patent application (which was filed on April 9, 2004). As such, Applicant declares to have exercised diligence regarding the invention at least from March 27, 2003 (the filing date of the previously cited Stern-Berkowitz reference) to April 9, 2004 (the filing date of the present application) (See Declaration: Item 7).

However, Applicant does not provide evidence accounting for the gaps between the dates of March 27, 2003 and September 16, 2003, between September 16, 2003 and January 20, 2004, and between January 20, 2004 and April 4, 2004.

MPEP 2138.06 states that an Applicant must account for the entire period during which diligence is required. A 2-day period lacking activity has been held to be fatal. In re Mulder, 716 F.2d 1542, 1545, 219 USPQ 189, 193 (Fed. Cir. 1983) (37 CFR 1.131 issue); Fitzgerald v. Arbib, 268 F.2d 763, 766, 122 USPQ 530, 532 (CCPA 1959). Diligence requires that applicants must be specific as to dates and facts. The period during which diligence is required must be accounted for by either affirmative acts or acceptable excuses. Rebstock v. Flouret, 191 USPQ 342, 345 (Bd. Pat. Inter. 1975); Rieser v. Williams, 225 F.2d 419, 423, 118 USPQ 96, 100 (CCPA 1958); Griffith v. Kanamaru, 816 F.2d 624, 2USPQ2d 1361 (Fed. Cir. 1987).

The new grounds of rejection presented in this Office Action (specifically, the Petrus reference Pub. No.: US 2004/0266474) has a filing date of June 25, 2003. As such, in order for the declaration submitted on 5/1/06 to be effective to overcome the Petrus reference, sufficient evidence establishing diligence must be submitted from a date prior to the date of reduction to practice of the Petrus reference (i.e., from June 25, 2003) to either a constructive reduction to practice or an actual reduction to practice.

### ***Claim Objections***

3. Claim 15 is objected to because of the following informalities: the terms "GSM", "iDEN", "UMTS", "TDMA", "GPRS/EDGE", "CDMA", "WCDMA" are acronyms, which can mean different things and/or change in meaning over time; hence, it would be desirable to write out the actual words to which the acronyms refer. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1-3, 5, 14-17, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira (Pub. No.: US 2002/0107025) in view of Petrus (Pub. No.: US 2004/0266474).

Regarding claim 1, Oliveira discloses an efficient method of monitoring neighboring cells in a communication system, comprising the steps of:

monitoring the at least one neighboring cell for a service capability (paragraphs [0007], [0016], [0018]); and

discontinuing the monitoring of the at least one neighboring cell if a desired service capability fails to match the service capability of the at least one neighboring cell or if the load condition fails to meet a predetermined load condition (paragraphs [0007], [0016], [0018]).

Oliveira fails to specifically disclose monitoring at least one neighboring cell among a plurality of cells for a load condition on the at least one neighboring cell.

However, in the same field of endeavor, Petrus discloses monitoring at least one neighboring cell among a plurality of cells for a load condition on the at least one neighboring cell (paragraphs [0062], [0074]-[0075]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to monitor at least one neighboring cell among a plurality of cells for a load condition on the at least one neighboring cell of Oliveira as suggested by Petrus for the advantages of taking into account a set of one or more selection criteria in addition to signal strength to select a base station (Petrus: paragraph [0028]), efficiently utilizing resources,

optimizing system performance, guiding the searching process, and possibly avoiding unnecessary searches.

Regarding claim 2, in the obvious combination, Oliveira discloses wherein the method further comprises the step of monitoring the at least one neighboring cell for a signal quality indication (paragraph [0018]).

Regarding claim 3, in the obvious combination, Petrus discloses wherein the method further comprises the step of discontinuing the monitoring of the at least one neighboring cell if the signal quality indication falls below a predetermined threshold (paragraph [0058]). Note that the user terminal measures (i.e., monitors) the RSSI (i.e., the signal quality indication) for a set of candidate base stations whose RSSI are above a given threshold; thus, suggesting discontinuing the monitoring of the at least one neighboring cell if the signal quality indication falls below a predetermined threshold. Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to discontinue the monitoring of the at least one neighboring cell if the signal quality indication falls below a predetermined threshold for the advantages of efficiently utilizing resources, optimizing system performance, guiding the searching process, and possibly avoiding unnecessary searches.

Regarding claim 5, in the obvious combination, Oliveira discloses wherein the step of monitoring comprises the step of abstaining from monitoring the at least one neighboring cell for a period of time (paragraphs [0016], [0018]; note that abstaining from monitoring for a period of time is inherently present; in addition, note that paragraph [0016] discloses that anytime a cell list is constructed, the list is screened to make sure that only cells that provide the necessary services is included).

Regarding claim 14, which recite a portable communication device version of claim 1, see rationale as previously discussed above. In addition, note that a transceiver is at the least inherently present and/or an obvious expedient thereof in portable communication devices, such as the mobile station disclosed by Oliveira (Oliveira: Fig. 3, reference 114).

Regarding claim 15, in the obvious combination, Petrus discloses wherein the portable communication device is a cellular phone (paragraph [0087]) that operates on at least one communication protocol selected among GSM, iDEN, UMTS, TDMA, GPRS/EDGE, CDMA, and WCDMA (paragraph [0083]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to modify the portable communication device of Oliveira in combination with Petrus to be a cellular phone that operates on at least one communication protocol selected among GSM, iDEN, UMTS, TDMA, GPRS/EDGE, CDMA, and WCDMA as suggested by Petrus for the advantages of being widely available and notoriously well known systems.

Regarding claims 16-17, which recite a device version of claims 2-3, respectively (see above), see rationale as previously discussed above.

Regarding claims 24-26, which recite a cellular communication system version of claims 1-3, respectively (see above), see rationale as previously discussed above.

6. Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira in combination with Petrus as applied to claims 2 and 16 above, respectively, and further in view of Applicant's Admitted Prior Art (hereinafter "AAPA").

Regarding claims 4 and 18, Oliveira in combination with Petrus discloses the method of claim 2 and the device of claim 16 (see above), but fails to specifically disclose wherein the step

of monitoring for the signal quality indication comprises the step of monitoring for a signal quality **estimate**.

However, AAPA discloses wherein the step of monitoring for the signal quality indication comprises the step of monitoring for a signal quality **estimate** (Specification: paragraph [0017], 3<sup>rd</sup> sentence and paragraph [0018], 1<sup>st</sup> sentence; note that although the paragraph is in the Detailed Description, it constitutes an admitted prior art statement).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to monitor the signal quality estimate as suggested by AAPA for the advantages of being a conventional method to qualify neighbor cells (AAPA: paragraph [0017], 3<sup>rd</sup> sentence).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira in combination with Petrus as applied to claim 1 above, and further in view of Corriveau et al. (hereinafter "Corriveau"; Patent No.: 6,038,449).

Regarding claim 6, Oliveira in combination with Petrus discloses the method of claim 1 (see above), but fails to specifically disclose wherein the step of monitoring for the service capability comprises the step of monitoring for the capabilities **selected among the group comprising private call, dispatch, and short messaging system**.

However, in the same field of endeavor, Corriveau discloses wherein the step of monitoring for the service capability comprises the step of monitoring for the capabilities **selected among the group comprising private call, dispatch, and short messaging system** (col. 1, lines 24-36; col. 3, lines 42-54; col. 4, line 65 through col. 5, line 1).



Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to select the capabilities of Oliveira in combination with Petrus among the group comprising private call, dispatch, and short messaging system as suggested by Corriveau for the advantages of being widely available and well-known service capabilities (Corriveau: col. 1, lines 24-34).

8. Claims 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira in combination with Petrus as applied to claims 1 and 16 above, respectively, and further in view of Mazur et al. (hereinafter "Mazur"; Patent No.: 6,463,054).

Regarding claims 12 and 21, Oliveira in combination with Petrus discloses the method and device of claims 1 and 16, respectively (see above), further comprising [camping on the at least one neighboring cell] if the desired service capability matches the service capability of the at least one neighboring cell (Oliveira: paragraph [0018]), the load condition falls within the predetermined load condition (Petrus: paragraphs [0028], [0074]-[0075]), and the signal quality indication meets or exceeds a predetermined threshold (Petrus: paragraphs [0028], [0074]-[0075]). Note that although the specific step of **camping** on the at least one neighboring cell is not explicitly recited; it is, at the very least, implicit from the references disclosure.

Note that Oliveira discloses that only those cells capable of supporting the requested service are considered for allocation of network resources (paragraph [0018]), i.e., if the desired service capability matches the service capability of the at least one neighboring cell. In addition, note that Petrus discloses base station selection based on a set of one or more selection criteria, such as, signal strength and load condition (paragraphs [0028], [0074]-[0075]), i.e., the load

condition falls within the predetermined load condition, and the signal quality indication meets or exceeds a predetermined threshold.

Accordingly, the combination discloses and/or suggests camping on the at least one neighboring cell if the desired service capability matches the service capability of the at least one neighboring cell, the load condition falls within the predetermined load condition, and the signal quality indication meets or exceeds a predetermined threshold.

However, Mazur discloses camping on the at least one neighboring cell (col. 2, lines 43-61). Note that Mazur also discloses that the most appropriate cell is typically determined by performing signal strength measurements on the serving and neighboring cells such that camping occurs on the cell providing the best radio conditions. Mazur further discloses that those skilled in the art will recognize that factors other than signal strength, e.g., service capability, can be considered as part of the process of identifying the most appropriate cell.

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to camp on the at least one neighboring cell if the desired service capability matches the service capability of the at least one neighboring cell, the load condition falls within the predetermined load condition, and the signal quality indication meets or exceeds a predetermined threshold as suggested for the advantages of settling or locking on the cell providing the best radio conditions (Mazur: col. 2, lines 43-61).

9. Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira in combination with Petrus as applied to claims 1 and 14 above, respectively, and further in view of Hamalainen et al. (hereinafter "Hamalainen"; Patent No.: 6,363,252).

Regarding claims 7 and 19, Oliveira in combination with Petrus discloses the method and device of claims 1 and 17, respectively (see above), but fails to specifically disclose wherein the step of monitoring the load condition comprises the step of monitoring a load condition for each of the service capabilities supported on the at least one neighboring cell.

However, in the same field of endeavor, Hamalainen discloses wherein the step of monitoring the load condition comprises the step of monitoring a load condition for each of the service capabilities supported on the at least one neighboring cell (col. 7, lines 60-65).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to monitor a load condition for each of the service capabilities supported on the at least one neighboring cell as suggested by Hamalainen for the advantages of best describing base stations loads and separating them for services requiring real-time data transmission and non-real-time data transmission (Hamalainen: col. 7, lines 60-65).

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira in combination with Petrus and Hamalainen as applied to claim 7 above, and further in view Lobinger et al. (hereinafter "Lobinger"; Pub. No.: US 2003/0181208).

Regarding claim 8, Oliveira in combination with Petrus and Hamalainen disclose the method of claim 7 (see above), but fail to specifically disclose wherein the method further comprises the steps of monitoring the load condition and the service capability further comprises the step of deciphering by a portable communication unit a codeword transmitted by the at least one neighboring cell.

However, in the same field of endeavor, Lobinger discloses wherein the method further comprises the steps of monitoring the load condition and the service capability further comprises

the step of deciphering by a portable communication unit a codeword transmitted by the at least one neighboring cell (Abstract; paragraphs [0008], [0010]-[0011], [0013]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to decipher by a portable communication unit a codeword transmitted by the at least one neighboring cell as suggested by Lobinger for the advantages of accelerating monitoring of adjacent cells and reducing signaling expenditure (Lobinger: paragraphs [0010] and [0013]).

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira in combination with Petrus, Hamalainen, and Lobinger as applied to claim 8 above, and further in view Johansson et al. (hereinafter "Johansson"; Patent No.: 6,449,482).

Regarding claim 9, Oliveira in combination with Petrus, Hamalainen, and Lobinger disclose the method of claim 8 (see above), but fail to specifically disclose wherein the method further comprises the step of transmitting the codeword periodically in a known slot number to avoid stealing bits from every transmit slot.

However, in the same field of endeavor, Johansson discloses transmitting the codeword periodically in a known slot number to avoid stealing bits from every transmit slot (col. 3, lines 5-24).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to transmit the codeword periodically in a known slot number to avoid stealing bits from every transmit slot for the advantages of increasing communication throughput.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira in combination with Petrus, Hamalainen, and Lobinger as applied to claim 8 above, and further in view Edlund et al. (hereinafter "Edlund"; Pub. No.: US 2004/0022226).

Regarding claim 11, Oliveira in combination with Petrus, Hamalainen, and Lobinger disclose the method of claim 8 (see above), but fail to specifically disclose wherein the codeword forecasts not only its current channel loading but also its projected service loading for subsequent timeslots.

However, in the same field of endeavor, Edlund discloses wherein the codeword forecasts not only its current channel loading but also its projected service loading for subsequent timeslots (paragraph [0099]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to forecast not only its current channel loading but also its projected service loading for subsequent timeslots as suggested by Edlund for the advantages of facilitating operations, such as handovers, by providing, in advance of the operation, pertinent information which is germane to the decision making process of whether the operation should occur (Edlund: paragraph [0099]).

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira in combination with Petrus as applied to claim 14 above, and further in view Lobinger.

Regarding claim 20, which recite the limitations of claim 8, see rationale as previously discussed above.

*Allowable Subject Matter*

14. Claims 10, 13, 22, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSC 11/13/07  
MSC

  
WILLIAM TROST  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600